Observations on the Gastric Glands of the human Stomach, and the Contraction which takes place in that Viscus. By Sir Everard Home, *Bart. V.P.R.S.* Read June 26, 1817. [*Phil. Trans.* 1817, *p.* 347.]

This paper contains an account of the internal membrane of the human stomach, in reference to magnified views of the different structures composing its surface, executed by Mr. Bauer.

The œsophageal glands have the appearance of infundibular cells. The structure upon the upper arch of the stomach is made up of cells, of the form of a honeycomb; and this structure extends, though less visibly, over the whole surface of the cardiac portion. In the pyloric portion the cells have the same appearance; but there are small clusters, the sides of which rise above the surface, giving the appearance of foliated membranes.

Having formerly shown that the gastric glands are largest and most numerous in the animals that inhabit the least fertile regions of the earth, and *vice versâ*, the author remarks the greater necessity for the same arrangements in man, whose gastric glands are so small as to require microscopic aid to prove that they appertain to the same series of structures as those of the ostrich, which may be minutely examined by the unaided eye.

Sir Everard alludes to his former discovery of the occasional division of the stomach into two portions by a muscular contraction, which he is now able further to elucidate by a case in which this contraction had become permanent, and which probably caused the death of the woman in whom it occurred. The importance of this fact in studying the physiology of the stomach, is the only apology, says the author, which I shall make for having pressed it so much on the attention of the Society: its use in the pathology of that viscus, though perhaps of still more importance to the cause of suffering humanity, this is not the proper place to consider.

A drawing of the contracted stomach also is annexed to this paper.

On the Parallax of the fixed Stars. By John Pond, *Esq. Astronomer Royal.* Read June 26, 1817. [*Phil. Trans.* 1817, *p.* 353.]

The object of this paper is to communicate a series of observations made with a new instrument for the purpose of investigating the question of parallax. Though a much longer period of time will be necessary to elucidate this subject in a perfectly satisfactory manner, yet, from the observations already made, it seems highly probable that the parallax of α Cygni is too small a quantity to have had any share in producing either the discordances remarked by Dr. Brinkley, or those in the Greenwich observations already communicated to the Society.

The method consists in continually observing the meridional difference in polar distance of α Cygni and β Aurigæ, (which pass through the field of the same telescope,) by means of a micrometer adapted to this purpose.

A drawing of the instrument accompanies the observations.